

RELATION OF EDUCATION TO INSANITY.

BY

EDWARD JARVIS, M. D.,

OF

DORCHESTER, MASSACHUSETTS.

REPRINTED FROM THE REPORT OF THE UNITED STATES
COMMISSIONER OF EDUCATION FOR 1871.

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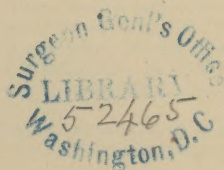
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RELATION OF EDUCATION TO INSANITY.

By education is here intended any training of the mind by which its facilities are drawn out, its powers disciplined, and knowledge is acquired. This includes the study of books, of the thoughts, principles, and facts that have been prepared, digested, and printed by others. Usually this is done in the schools, from the infant school to the university, or it is done in private life, with or without teachers. Besides these means there is the education of the outer world in social intercourse, in business, in the management of affairs, public and private, political, of State or town, in commerce, manufactures, agriculture, &c.

THE BRAIN AND MENTAL ACTION.

Whatever stimulates the mind to observe, to study, or reflect, whether it be things present to the eye, or abstract ideas in books; whatever demands thought, comparison, or deduction, whether it be arithmetic, grammar, geography, or the profoundest problems in science and philosophy, whether it be the relations of values in business, the combination of materials and succession of processes to obtain definite ends in mechanics, or the observation and pursuit of the laws of nature to obtain crops of grain, and other products in agriculture, they all demand mental action; they develop and train the mind; they discipline the perceptive and the reasoning faculties, and all lay burdens of various weight upon the brain. There is no work of the mind without cerebral action.

These burdens are extremely light upon the savage, who only thinks enough to find a cavern to shelter himself from the storm, or to search for wild fruits, or to catch a fish or an animal for food. They are heavier on the farmer who develops the riches of the soil, and raises grains, fruits, and vegetables for his nutriment, or on the mechanic who plans and builds a comfortable dwelling, adapted to the wants and health of a family, and still heavier upon the manager of a manufacturing establishment, or the conductor of a commercial enterprise, or the affairs of state; and in the technical education of the schools, the burden increases from the lightest upon the child who endeavors to grasp the relations of sounds to the form of letters, to the philosopher who solves the most abstruse problem of mathematics; whatever this burden may be, its first demand is for action of the brain.

Now the question arises, whether this action of the brain has any disturbing influence upon its health; and if so, in what manner and to what extent is insanity or mental unsoundness increased by education, and, if so, how much? And, lastly, is this a necessary condition of educating the people, of raising them from a savage and rude state to the civilized and the cultivated?

LITTLE OR NO INSANITY AMONG SAVAGES.

Without means of demonstration, there is an almost universal opinion that there is little or no insanity in savage nations, or even among barbarians. This is the opinion of almost all travelers of every kind—the curiosity hunters, the commercial, the philosopher—all concur in reporting that they found no lunatics, and heard of none among the rudest people.

This is admitted by writers on insanity—Esquirol, Halliday, Prichard, Bucknill, Tuke, and others—men of the greatest research, and of the most cautious habits of deduction, the profoundest thinkers, the most reliable philosophers.

Insanity is manifest in all countries above the state of barbarism, from half-civilized Egypt and Turkey to the most cultivated and refined. It exists in various proportions to the population, but there are no means of determining these ratios. Although from all these countries there are reports of insanity, from most they are vague and ill-founded. Some include only those who are in hospitals for lunatics, as Egypt; others report such as are in public institutions, as hospitals, alms-houses, and prisons. England reports those who are in these establishments, and also those who are under guardianship.

Some governments, at their periodical censuses, inquire as to the insane in the families, and publish their numbers, with some statements of their condition.

EVERY CENSUS OF THE INSANE IMPERFECT.

It is not an easy matter to obtain the number of the insane in any community. In early times they were supposed to be possessed by the evil spirit; and later, even now, they are considered by some people more than a misfortune, even a disgrace to their families, and many were, and some are now, concealed, known only to their relatives and a few friends. Many still are unwilling to speak of the insane of their

households as they do of others whose sickness is of the body, fever, consumption, pneumonia, &c.; still more do they shrink from speaking of this domestic calamity to strangers.

Governments find this difficulty in this inquiry, and fail, in great degree, to overcome it. When their agents ask at the houses whether any of the family is a lunatic, the question is often evaded, or met by a direct denial. This is a source of mortification that the sensitive, the agonized or proud parent, child, or brother is not willing to expose to a public officer who asks that he may publish it; and therefore the information is withheld. Hence even these official enumerations fall short of the probable fact.

TRUE PERCENTAGE OF THE INSANE POPULATION.

The report of the insane of Massachusetts in 1854 makes the nearest approximation to completeness. The commissioners appointed to make that survey requested every physician to give the name of every lunatic within his knowledge, with a description as to thirteen specified points. The name enabled the commission to avoid duplication, and exclude all repetition of the same persons. Every physician except four reported. As in any established community, like Massachusetts, there are few or no families whose domestic condition is not known to some physician, it was presumed that few or none could fail to be reported. The result was that one person in every four hundred and twenty-one of the living was found to be insane.

The average of the reports of two State censuses, 1855 and 1865, and of three national censuses, 1850, 1860, and 1870, in Massachusetts, was one lunatic in five hundred and seventy-one of the living. The commissioners' report was 2,375 in 1,000,000, and the censuses reported 1,750 in the same number of people. The commissioners found 28.14 per cent. more than the families revealed to the enumerating officials of State and nation.

In the absence of other standards of comparison, this may be assumed as a correct one, and that the State or national reports of results of inquiries made in the ordinary way fall short of the truth in a similar degree, and the 28.14 per cent. should be added for the incompleteness of the returns.

It is safe, at least, then, to add this proportion to the number of the insane reported by the census of any civilized country.

The enumeration of the people by actual family and personal inquiry and counting is a modern improvement. Few of them go back even into the last century. Most statements of population a hundred and more years ago are based upon indirect inquiry—upon calculations, inference, estimates, which at least are but approximations to the facts. The inquiries into the number of the insane are still more recent, mostly within less than half a century, or even a quarter of a century. The first of the United States was in 1840, and again in 1850, 1860, and 1870. Those for 1850 and 1860, as already shown, were manifestly incomplete as to Massachusetts, and probably for other States.

APPARENT INCREASE OF THE INSANE.

In whatever way the number of the insane have been ascertained, calculated, or estimated, there has been a constant increase reported—more and more have been revealed and known with the progress of years.

The successive reports, upon whatever source or means of information procured, all tend to show an increasing number of the insane.

In the United States, Great Britain, Ireland, and other civilized nations, so far as known, there has been a great increase of provision for the insane within forty years, and a very rapid increase within twenty years. Hospitals have been built, seemingly sufficient to accommodate all the lunatics within their respective States, counties, or districts. These have been soon filled, and then crowded and pressed to admit still more. They have been successively enlarged, and then other institutions created, and filled and crowded as the earlier houses were.

This increase of lunatics presented to the hospitals has been and is much greater than the increase of population, and seemed to indicate an increase of insanity in proportion to the numbers of the people.

CAUSES OF APPARENT INCREASE.

At first sight this seems to be evidence of so much actual increase of lunacy in the world. But further examination shows that it is not so much the development of new cases of insanity as the development of the persons insane—not so much a manifestation of increased lunacy as an increase of the world's knowledge of its presence among them.

In former times lunatics were objects of terror and disgust. They were considered as unpleasant blots on families, sources of shame and mortification. Hence they were concealed and their existence known to as few as possible. Their disease being thought remediless, they were allowed a bare existence, but not to be numbered as among men.

INSANITY A CURABLE DISEASE.

But in later times a better knowledge of pathology shows that insanity is primarily a disease of the physical organs, and is generally remediable. The means of restoration are now provided in hospitals fitted for them. Patients, such as in another age would have been given up as forever lost to their friends and the state, are now sent to these institutions and again brought back in their sound mind, and again assume the burdens and bear the responsibilities of healthy life at home.

Society now seldom attaches dishonor to this disease. They respect it and regard it as tenderly as the disorder of any other organs, the lungs, the stomach, &c.; consequently the insane are more and more brought out. The more the means of healing are provided and made known to the people and brought within the reach of families, the more are they moved to take advantage of them and intrust their mentally-disordered friends to their care. This is remarkably illustrated by the growth and increase of hospitals in most of the States of the Union and in the nations of Europe.

In a State where, perhaps a hundred patients are known, the Government builds a hospital for them; but, looking providently to the future, plans it large enough to accommodate one hundred and fifty. Soon after its doors are opened the hundred appear, and in a short time the other fifty, and still more, apply for admission. The State builds wings for another hundred with the same far-seeing prudence; but in a short time the new rooms are filled; again there is a crowd and a new demand for expansion.

THE EXPERIENCE OF MASSACHUSETTS.

The history of Massachusetts is a type of the experience of other States in this respect. In 1832 the State built the lunatic hospital at Worcester for one hundred and twenty patients, which was as many as the legislature thought would be offered for several years. In their first report, at the end of the first year, the trustees said: "The hospital is now in a very crowded condition," and proposed that additional accommodations should be provided. In the next year, 1834, the superintendent, Dr. Woodward, reported that the hospital was crowded, and that he had been obliged to reject half the applications for want of room. In 1837 two wings were added, for one hundred and sixteen patients. One hundred and seventy-seven patients were admitted in 1838, and one hundred and seventy-nine in 1839. There were two hundred and thirty present at the end of 1842, and two hundred and fifty-five at the end of 1843. In 1844 two more wings were added, for one hundred and twenty-five patients. In 1843 two hundred and ninety-three were admitted. In 1853 the average number was five hundred and twenty, through the year; and at one time there were five hundred and sixty-seven in the house.

In 1854 the State opened the new hospital at Taunton, for two hundred and fifty patients. At the end of September, 1857, there were three hundred and twenty-seven patients in this institution, and three hundred and eighty-seven in that at Worcester.

In 1858 the State opened the third hospital, at Northampton, for two hundred and fifty patients. In 1862 it contained three hundred and thirty-two lunatics, while there were four hundred and one at Worcester, and four hundred and twenty-one at Taunton.

Within two years the State has built an establishment for lunatics at Tewksbury. In 1870 there were two hundred and sixty-seven inmates in this house; and at the same time eleven hundred and ninety-three in the three State hospitals, two hundred and thirty-three in the Boston city hospital, and one hundred and seventy-eight in the McLean asylum; in all the public institutions of Massachusetts, eighteen hundred and seventy-one insane patients.

It cannot be supposed that so many persons were suddenly attacked with insanity when these successive establishments were opened or enlarged for their healing—that an epidemic mania fell upon the people so contemporaneously with the new opportunities of relief. But rather there was an increase of intelligence of the nature of the malady and of its curability, and of confidence in the management of these hospitals, and in their power to restore the mentally disordered to health. From this cause, so many more of the insane were brought out from their homes and revealed to the authorities and to the world.

The more these means of healing were prepared, the wider the knowledge of their worth spread among the people, and the more the number of the insane seemed to increase. Yet, however we may qualify this apparent increase of lunatics by this explanation of increased interest in them, and of the means of cure, within the last fifty years, there has unquestionably been a very great real increase of the malady in the progress of the world from the savage to the civilized state. Without asserting that these two great facts, the development of mental disorder and the growth of human culture, stand as cause and effect, still all the known evidence goes to show that these have marched side by side, and disease of the brain has grown up in connection with the increased mental activity and culture, if not out of them. We may then reasonably ask, whether this connection is more than accidental, and, if so, to what extent?

CONNECTION OF INSANITY WITH CIVILIZATION.

The savage is apathetic, and his mind is torpid. He has but little more than the animal instincts, cunning and appetite. He neither learns nor thinks, nor loves nor hates as cultivated people do; so his brain bears little or no burden. The barbarian has somewhat more mental action. He is somewhat more emotional, and his brain has more to do, but far less than the civilized races.

As man emerges from this low estate, his brain begins its destined work; new wants present themselves, and compel thought to satisfy them; new gratifications tempt him to devise means of obtaining them. He seeks variety; he co-operates with his fellows in business; mechanic arts exercise his mental faculties; public affairs require his attention; education in schools, with books, quicken the cerebral energies; and thus burdens are laid upon the brain, and its labors increase as civilization passes from the lower to the higher, admitting more and more culture.

The brain is the seat or organ of thought and emotions. By this, or with this, certainly in connection with this, we conduct all the mental operations; we study, learn, think, plan. By it, or with it, we love or hate; we feel joy or sorrow, exhilaration or depression. All that constitutes life and its movements is connected with the brain and its actions.

It is natural to suppose that any machine or structure is in more danger of getting out of order when it is put in motion and used than when it is entirely dormant. The active brain is in more danger of disturbance than one that is ever at rest.

CAUSES OF MENTAL DISORDER.

When patients are admitted into insane hospitals the officers obtain the best information they can from friends and previous medical attendants, in respect to their history, habits, exposures, and conditions, and the events, circumstances, and influences that might be supposed to be causes of the disorder. All this is put on record, and if afterward any new facts are discovered that should modify the opinions first formed the record is altered correspondingly. These causes are digested into systems, arranged in tables, and published in the periodical reports of the hospitals. By means of these the psychological student is enabled to trace insanity back to its probable or assumed causes, in most civilized nations, through periods varying with the experience of the hospitals.

In a part of the cases the causes are self-evident and manifest equally to the common and scientific observer, to the friends, the physician, and the specialist, who is familiar with the diseases of the brain. Of these there is no doubt. But, in regard to many others, it is difficult to determine the origin. There may be several causes combined. Some which seem to be causes may have been merely co-existing conditions or events. Sometimes habits or conditions which are apparently causes are really a part of the disorder or its early symptoms. A man, ordinarily very cautious, may go out of his usual track of business and enter into hazardous speculations and grow more and more venturesome, and at last he becomes excited, absorbed, loses his wonted balance and at length becomes manifestly insane. His speculations are, by most persons, supposed to be the cause of his mental disease; but, in reality, the disease had its origin before the speculation, and first prompted him to go out of his habitual course of life into this uncertain and dangerous business. This was the first open stage of his malady.

Beside the classes of cases whose origin is certain and those which are doubtful, there is a large class of which nothing can be learned, and some whose history, although fully known and faithfully reported, reveals nothing as to the source of the mental disturbance. This class of the unknown figures largely in the tables of most, if not all, hospitals.

CLASSIFICATION OF CAUSES.

The causes of insanity which are certain and accepted are usually divided into two classes: 1. Physical, those which affect the body and brain primarily; as apoplexy, palsy, epilepsy, fever, blows on the head, and many other diseases or injuries. 2. Moral, those which first affect the mind and the emotions; as excess of study, all sorts of overaction of the brain in business, excitements, mental disturbances, disappointments, griefs.

In some of the hospital reports there are ninety-three of the physical and eighty of the moral causes given. In all the reports the number of imputed or stated causes is much greater. They include most of the diseases, disturbances, exposures, mistakes, misappropriation of mental power or emotion that happen among men.

Among these are comparatively few that are directly chargeable to education, yet it is equally clear that comparatively few of these causes exist in the savage state, nor are common in an ignorant age. They have mostly grown up with civilization and are its contemporaries, if not its results, immediately or remotely.

INFLUENCE OF EDUCATION.

Education causes directly but little insanity. In a table of seventeen hundred and forty-one cases, whose causes are given, from sixteen hospitals, only two hundred and five are from excess of study, two hundred and six from mental struggles and anxiety, and sixty-one from excitements. Eleven hundred and thirty-four were from business trials and disappointments.

But education lays the foundation of a large portion of the causes of mental disorder. It unlooses the brain from its bondage of torpor, and encourages mental activity in the numberless paths of life. It opens the fields of enterprise; it adds intelligence and reason to the power of the muscles, and makes them more available for every purpose. It stimulates energy and bold adventure. It offers temptations for the assumptions of mental burdens in business. It holds out rewards to ambition, for the strife for knowledge, wealth, honor, political success. These and other motives act in various degrees on civilized communities, and few people completely escape their influence; and among nearly all there is more mental activity, more cerebral labor, in thought, anxiety, more exhilaration from hope and success, and more depression from anxiety and disappointment, than is found among people that are untaught. All these have their dangers, and among those thus engaged some lose their mental balance, and some become insane.

There are other causes that only appear in a cultivated age, yet they may affect mostly uncultivated people. Education and civilization produce machines and other means of labor. In the hands of uneducated men these cause accidents to their ignorant operators, who are thereby made insane.

In the hospital reports the largest class of causes is included in the comprehensive term "ill health." This was the presumed origin of 21 per cent. of the cases. Under this head are the manifold depressions of life, or disturbances of the physical powers. Dyspepsia is the most prominent. With the general failure of health the brain and nervous system suffer and falter in their functions.

INTEMPERANCE A CAUSE.

Intemperance is another cause of much insanity. About 10 per cent. of all stated are said to arise from this vice. This happens more among the poor and the ignorant in a civilized society. Savages are protected from this cause of insanity simply by their want of opportunity; but in cultivated communities the means of intoxication are more accessible and obtainable; few are so poor as to be unable to obtain them, and it is noticeable that the poor are the most addicted to this indulgence, and furnish thereby a very great portion of the victims of lunacy.

It is a melancholy yet unavoidable conclusion that some or many of these causes of insanity are peculiarly abundant in this country and in this age, and some of them are increasing in frequency and disturbing force. Almost the whole class of accidents, injuries, and exposures has increased. With the new improvements in the mechanic arts, the multiplication of machinery, the new and sometimes uncontrolled, if not uncontrollable, motive powers, and with the new modes of travel, more accidents happen, more injuries are inflicted, and in their way they multiply the causes and the cases of insanity.

In course of the same progress of improvement, there are more chemical agents discovered, and numberless new applications of this science, and its discoveries to practical use, in the common arts and business of life. Men are, therefore, more exposed to minerals, acids, gases, paints, dye-stuffs, and combustibles, and explosive elements and mixtures, which are sometimes more or less injurious to health, or cause accidents dangerous to those who are connected with them, and consequently multiply the causes and the cases of lunacy.

COMPLEX NATURE OF MODERN CIVILIZATION A CAUSE.

The causes connected with mental labor in its manifold applications have increased and are increasing continually. In the progress of the age, education has made rapid advance both in reaching a wider circle of persons, and in multiplying the subjects of study. The improvements in the education of children and youth have increased their mental labors, and imposed more burdens upon their brains in the present than in the preceding ages. The proportion of children who are taught in schools increases every year in the United States, and in most civilized nations. There are more and more of those whose knowledge, whose sense of duty, whose desire of gratifying friends, and whose ambition, impel them to make their utmost exertion to become good scholars. Thus they task their minds unduly, and sometimes exhaust their cerebral energies, and leave their brains a prey to other causes which may derange them afterwards.

The new sciences which have been lately discovered, or the old sciences that were formerly confined to the learned, but are now simplified and popularized, and offered to the young as a part of their education, multiply the subjects of study, and increase the mental labor of almost all schools.

Men, and classes of men, such as in the last century would have thought of nothing but how they should obtain their bread, are now induced to study subjects, and pursue sciences, and burden their brains with great, and sometimes with excessive, labor. New fields of investigation have been laid open within the last hundred, and especially within the last fifty, years. New inducements are offered, so that a greater variety of tastes is invited to their peculiar feasts of knowledge. Many more now study metaphysics, mathematics, physiology, chemistry, biology, &c., and thus they compel their brains to labor with more energy and exhausting zeal than those of any former generation. In this multiplication of students there are some who attempt to grapple with subjects that they cannot master, and sink under the burden of perplexities which they cannot unravel.

In this general increase of mental activity some men become interested and give their minds intensely to the study of public topics, politics, state or national affairs, and the subjects of legislation, the banking system, tariff, anti-rent, anti-masonry, the license question, &c., or to public moral questions, anti-slavery, temperance, and general or special reforms, any or all of which impose upon them great anxiety and mental labor.

In this country, where no son is necessarily confined to the work or employment of his father, but all the fields of labor, of profit, and of honor are open to whomsoever will put on the harness and enter therein, and all are invited to join the strife for that which may be gained in each, many are in a transition state from the lower and less desirable to the higher and more desirable conditions. They are struggling for that which costs them mental labor, and anxiety, and pain. The mistake, or the ambition of some, leads them to aim at that which they cannot reach, to strive for more than they can grasp, and their mental powers are strained to their utmost tension; they labor in agitation, and they end in frequent disappointment. Their minds stagger under the disproportionate burden; they are perplexed with the variety of insurmountable obstacles, and they are exhausted with the ineffectual labor.

EXCESSIVE MENTAL APPLICATION A CAUSE.

But in an uneducated community, or where the people are overborne by despotic government or inflexible customs, where men are born in castes and die without stepping beyond their native condition; where the child is content with the pursuit and the fortune of his father, and has no hope or expectations of any other, these undue mental excitements and struggles do not happen, and men's brains are not confused with new plans nor exhausted with the struggle for a higher life, nor overthrown with the disappointment in failure. Of course, in such a state of society these causes of insanity cannot operate. But, in proportion as education prevails and emancipates the new generations from the trammels and the condition of the old, and the manifold ways of life are opened to all, the danger of misapplication of the cerebral forces and the mental power increases, and men may think and act indiscreetly and become insane.

The same is distinctly manifested in the pursuits of business. There are many new trades and new employments; there are new schemes of increasing wealth, new articles of merchandise, and speculations in many things of new and multiplying kinds. All these increase the activity of the commercial world. The energy of men of new enterprises gives a hope of actual value and a momentary market value of some new kinds of property. The consequent inflation or expansion of prices to a greater or less degree, makes many kinds of business more uncertain and many men's fortunes more precarious. This increases the doubts and perplexities of business, the necessity of more labor and watchfulness; it compels greater fear and anxiety, and the end is more frequently in loss, and failure of plans, and mental disturbance.

Connected with these uncertainties which may happen to any, there are more that enter the free and open avenues to occupations which hold out high and flattering promises for which they are unprepared, in which they must struggle with greater labor and anxiety than others, and in which they must be more frequently disappointed.

FAST LIVING A CAUSE.

Besides these causes of mental disturbance in the new and untried fields of study and business and commerce, there are other causes in the social position, which is subject to like change. Many are passing, or have passed, from a comparatively retired, simple, and unpretending, to the showy, the fashionable, or the cultivated style of life. In this transition state there must be more mental labor for those who are passing from one condition to the other; there must be much thought and toil, much hope and fear, and much anxiety and vexation to effect the passage and to sustain one's self in the new position.

With the increase of wealth and fashion there come also more artificial life, more neglect of the rational laws of self-government, more unseasonable hours for food and for sleep, more dissipation of the open, allowable, and genteel kind, and also more of the baser, disreputable, and concealed sorts.

Consequent upon the new labor and new position and new style of life, there comes low health, from exhausting and perplexing cares and toils of business, of social life and fashion, and from frequent irregular habits of diet and regimen. The secondary consequences of impaired health, of diminished vital force, dyspepsia, debility, consumption, gout, or other diseases, are at length manifested in the brain, and then nervousness frequently, and insanity sometimes, follows.

PROPER EDUCATION NOT RESPONSIBLE FOR INSANITY.

This multiplication of cases of insanity must not be charged to education as a necessary condition or consequence. It is rather due to the incompleteness and the perversion of education. Some is caused by the early stimulation of precocious children, some to the pressure upon the brain in childhood and youth, but most from misapplication of education, of mental power, and the cerebral forces in the maturer periods of life.

LAW OF LIFE NOT TAUGHT.

Among the abundant, various, and profitable teachings of the schools and the world, of books and of society, the inseparable connection of mind and body, of thought, mental action, study and reasoning, with the brain, holds an insufficient prominence. Ordinarily this has no place in the plans of education. Among the countless improvements that have been made, there yet remains the frequent error, both of faith and of practice, that the human mind has no limit to its expansibility, none to its capacity of labor, that the infinite spirit is not bound by any finite organ, that the work of the brain may begin with the earliest dawn of sense, and be increased as fast as the will of the child, the ambition of friends and teachers may desire, and that in all the fields of study, observation, and thought, whether with books in early and mature life, or in the world's affairs, business, politics, there is no danger of overtaking the cerebral powers, or of exhausting their energies, or of disturbing the mental balance.

PROPER METHOD OF DEVELOPING THE BRAIN.

Every organ of the body has its appropriate duty and sufficient strength to perform it. Each one is intended for action and effectiveness. The hand and the foot were made for labor, the stomach for digestion, and all gain strength thereby. Yet the hand may be lamed, the foot may be sprained, and the stomach disordered by excess of exercise or by bearing unfitting burdens. The brain was not designed to lie dormant. It was intended for action and grows strong with proper use. But, like the hand and the foot, it has its conditions of action and of growth. It may, and its best health demands that it should, be developed and strengthened, but this is by a slow and gradual process. The child's brain, like its muscles, cannot bear the burden of a more advanced age. If either be overtasked it falters and its growth is retarded. Yet the training of both in early life and their exercise through maturity and age are favorable to and needful for their best condition. If, in what is technically called the educational period, in the beginning, and through all mature life, even to the end, progress is made step by step, each one growing out of the strength of the preceding, the brain's utmost capacity may be reached, and the mind sustained in unvarying soundness.

Any change may be made in mental progress, and any degree of growth attained, without injury to the cerebral health, if done under these conditions, and no attempt made to leap over the intervening grades of advancement. The laborer may become a philosopher, and grasp the hardest problems, if he go through the same course of training and development that the scholar has passed. The philosopher or scholar may become a laborer and do the heaviest work with his hands, if he begin with the lightest tasks and add the heavier only as his strength increases. The blacksmith, whose strength is in his arms, and the rope-dancer, whose strength is in his legs and feet, may exchange their occupations, and each become proficient in his new art, provided that, in his new field, he go through the same slow process of development and training as the original professor or workman had in his earlier life.

But neither of these can suddenly exchange his habit and occupation with the other and assume the new tasks, without suffering in the organs that are made to bear burdens for which they are not suitably prepared.

By training and use the brain becomes not only strong, but flexible and versatile; it is more easily brought into action, more readily turned to new purposes; its powers are more under the command of the will. It becomes more refined, and its functions, both intellectual and emotional, more delicate and intense in their operations. Its sensibility is exalted; it is more susceptible of impressions and influence for good and for evil.

HIGHER FUNCTIONAL ACTIVITY DEMANDS GREATER CARE.

In an educated community there is generally, almost universally, a larger and more active mental power. The mind grasps more and reasons more. There are deeper and

stronger emotions and passions. There is a higher joy and deeper suffering. There is warmer love, and hate more bitter. Life is there larger, broader, more earnest, and effective.

With this increase of power derived from education there is also more delicacy in organization and more danger of functional disturbance. With these larger endowments of capacity and knowledge there comes a greater responsibility for self-management, more danger of mistakes and of consequent disease.

These dangers are strewn all along the path of life. Education and civilization have created or increased them, and should be held responsible for them, to prevent their efficiency and save the world from the mental injury which they threaten.

FAILURE OF EDUCATORS TO MEET THIS RESPONSIBILITY.

Education thus far has wrought an incomplete work. What it has done is well done; but there is yet more for it to do. It has yet to show man and woman how they may use the great trust committed to them, the care of themselves. Great powers of body and mind are put into their hands, by which they can accomplish an almost infinite variety of purposes, do great good to the world, and gain unmeasured happiness for themselves. They are taught and encouraged to work with their bodily organs and mental faculties, their muscles, brain, and mind; but they are not shown the conditions of these endowments, their capacities and liabilities, their limits and dangers.

When the seaman undertakes to manage a ship, it is not enough that he understands navigation and geography, the course and way to the destined ports, to raise and present the sails to the wind, but he learns all the conditions of the path, the shoals, the rocks that lie in his way, and the dangers of the ocean. He learns the capacity of the vessel, its liability to leak, the burden that it will carry safely, the strength of the sails, ropes, and masts. Then, in accordance with these conditions, he manages the ship. When an engineer assumes the direction of a steam-engine, he is not content with the assurance that with it he can run mills, looms, spinning-jennies, lathes, &c., but he studies the whole structure and strength of his machine, and of all its parts; the rate it can move; the force that can be applied without injury; the quantity of water and fuel that are needed; the pressure of steam that can be borne. Having thus prepared themselves for their responsibilities, the seaman sails his ship and the engineer runs his engine safely, and both accomplish the purposes for which they were designed without injury or loss, without needless or unnatural wear and tear. But the schools, when they send their pupils forth to the world intrusted with their own vital machines to do the work of life, neglect to teach the law which must govern them, and thus these educated children are exposed to error and danger in after-life.

CARE OF SELF A DUTY.

However well one may be prepared for the recognized responsibilities of life; however learned in geography, mathematics, science, philosophy; however well he may be fitted to manage business, farms, factories, ships, there is yet this first responsibility that comes upon all men—the care of themselves. Before he can apply his other knowledge to any of its destined purposes, he must eat, and nourish himself; he must decarbonize his blood with air; he must use his muscles and his brain, and recruit their expended forces with rest or sleep. He may do these well, and make himself strong, healthy, clear-headed, mentally sound; or he may do them indiscreetly, and make himself sick, weak, stupid, insane. These evil consequences of error in self-management are everywhere seen. They are as frequent as the shipwrecks and the steam-explosions that are due to the ignorance of seamen and engineers.

INSANITY AMONG PROFESSIONAL MEN AND SCHOLARS.

Even those whose education is of the highest character, professional men whose whole labor is mental, are not free from the dangers that hang over the brain. They are exposed to the same causes of insanity that the non-professional people are; and in addition to these, they are subject to such as arise from excessive culture, and overburden the mental powers.

Some approximation may be made to the comparative liability of men of high education and others, in Massachusetts, from the record of admissions to the State hospitals, since that at Worcester was opened, in 1833. Neither the McLean asylum nor the city lunatic hospital, of Boston, give the occupation of the patients in their reports. Most of their inmates are sent to them from Suffolk County. The insane of the other counties are mostly sent to the three State hospitals, which publish the occupations. From 1833 to 1870, inclusive, these hospitals had admitted from the learned professions—

Clergymen	61	Editors	6
Physicians	54	Civil engineers	6
Lawyers	34		
Teachers	56	Total	346
Authors	5		
Students	124		

None of the censuses, State or national, give the professions in connection with age, sex, and county previous to that of 1865. The number of males over fifteen engaged in these learned professions, and of those in all other occupations in the State, out of Suffolk, between 1833 and 1865, cannot be ascertained. The number of these in 1865 is therefore the only obtainable basis of comparison. Without assuming that these numbers in the period 1833 to 1865 were the same as those in 1865, it may be supposed that their proportions were alike.

Comparing, then, this number of the professional insane admitted to the hospitals with the number of men engaged in all the learned professions, including also professors, librarians, and chemists, living in the State in 1865, and all other males admitted, with the non-professional males over fifteen years old in the State at that date, it is shown that the professional patients admitted in thirty-seven years were 3.75 per cent. of the whole number, and the non-professional patients were 2.16 per cent. of their whole number over fifteen in 1865. So far as the experience of Massachusetts from 1833 to 1870 goes, this seems to be the approximate relative proportions of insane sent to the hospitals from all the counties except Suffolk. Three and seventy-seven hundredths of the professional, and 2.16 of the non-professional males, or, as often as one hundred of the latter class were sent, one hundred and seventy-four of the first class, were sent to the State hospitals for the insane, out of the same numbers living in each class.

CONCLUSION.

From all this survey, we are irresistibly drawn to the conclusion that insanity is a part of the price that we are paying for the imperfection of our civilization and the incompleteness of our education.

This is not merely a present fact. It has been so in ages past. It will be so in the future. Our children will be required to pay the same price, until all men, women, and youths shall be educated to know the law of their being, and to feel and sustain their responsibility for the faithful management of the brain and mind, and the other organs and functions intrusted to their care.

EDWARD JARVIS, M. D.,
Dorchester, Massachusetts.

